Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Amendment of Parts 1, 21, 73, 74 and 101 of	)	WT Docket No. 03-66
the Commission's Rules to Facilitate the	)	RM-10586
Provision of Fixed and Mobile Broadband	)	
Access, Educational and Other Advanced	)	
Services in the 2150-2162 and 2500-2690	)	
MHz Bands	)	
	)	WT Docket No. 03-67
Part 1 of the Commission's Rules - Further	)	
Competitive Bidding Procedures	)	
	)	MM Docket No. 97-217
Amendment of Parts 21 and 74 to Enable	)	
Multipoint Distribution Service and the	)	
Instructional Television Fixed Service	)	
Amendment of Parts 21 and 74 to Engage in	)	
Fixed Two-Way Transmissions	)	
	)	WT Docket No. 02-68
Amendment of Parts 21 and 74	)	RM-9718
of the Commission's Rules With Regard to	)	
Licensing in the Multipoint	)	
Distribution Service and in the	)	
Instructional Television Fixed Service for the	)	
Gulf of Mexico	)	
	)	WT Docket No. 00-230
Promoting Efficient Use of Spectrum Through	)	
Elimination of Barriers to the Development of	)	
Secondary Markets		

PETITION FOR PARTIAL RECONSIDERATION OF NEXTEL COMMUNICATIONS

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Executive Summary

Nextel Communications seeks partial reconsideration of the Federal Communication Commission's *BRS/EBS Realignment Order* to establish the regulatory environment necessary to permit carriers to make the hundreds of millions of dollars of investment needed to deliver new, cutting-edge, multimedia products and services to consumers. The 2.5 GHz spectrum offers the potential of supporting services that change the way people communicate comparable to the communications revolution that accompanied the introduction of cellular mobile devices. As a licensee of 2.5 GHz spectrum, Nextel seeks partial reconsideration of the *BRS/EBS Realignment Order* to encourage the Commission to establish a regulatory environment that permits carriers to bring new, multimedia services to consumers.

Above all, the Commission should reconsider its decision to require proponents to transition the 2.5 GHz band on the basis of Major Economic Areas (MEAs). MEAs are too large for carriers to use in transitioning incumbent licensees to the new 2.5 GHz bandplan and needlessly complicate the transition. No rational relationship exists between the goal of a timely, efficient transition and the use of MEA-sized transition areas. Using MEAs will likely slow – rather than accelerate – the transition to a new bandpan. Rather than use MEA-sized transition areas, the Commission should use Basic Trading Areas (BTAs) to transition the band. BTAs are fixed, well-defined areas large enough to prevent the type of "haphazard" transition that the Commission feared when it rejected the Coalition Proposal of interference-based transition areas. BTAs are also small enough to allow for manageable administration of the numerous complex details associated with a market-wide transition.

In addition, the Commission should adopt a variety of other intermediate milestones, deadlines, and rule clarifications to ensure that the five-stage transition process to the new bandplan proceeds quickly and efficiently and that subsequent operations remain free of interference. Resolving certain ambiguities and procedural infirmities now will avoid costly and time-consuming disputes later.

Consumers benefit as broadband providers compete to build networks and deliver new services at lower prices across innovative technology platforms. By eliminating burdensome rules and providing clarity wherever possible, the Commission can increase investment incentives to deploy innovative broadband services in this spectrum, which will encourage innovation, growth, and lower prices throughout the broadband services market.

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PETITION FOR PARTIAL RECONSIDERATION OF
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I. Introduction

The Federal Communications Commission's decision to realign the 2.5 GHz band has the potential to generate economic growth by accelerating the pace of broadband

deployment in the United States.[1] In this petition, Nextel seeks reconsideration of a handful of issues to ensure that carriers can make the hundreds of millions of dollars of investment needed to deliver new, multimedia products and services to consumers.[2] Adopting these changes will help end the uncertainty that has for too long prevented the broadband radio service (BRS) and the educational broadcast service (EBS) from deploying new, innovative services that the market demands.

II. The Commission Should Use the Basic Trading Area as the Baseline Unit for Carriers to Transition the 2.5 GHz Band.

In the *BRS/EBS Realignment Order*, the Commission directed band-transition proponents to base their transition planning on Major Economic Areas (MEAs).[3] MEAs are exceptionally large geographic areas, each of which can encompass tens of thousands of square miles and can include many millions of people. As the Commission's *BRS/EBS Realignment Order* noted, the entire nation is comprised of just 52 MEAs, three MEA-

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[1] *Amendment of Parts 1, 21, 73, 74 and 101 of the Commission's Rules to Facilitate the Provision of Fixed and Mobile Broadband Access, Educational and Other Advanced Services in the 2150-2162 and 2500-2690 MHz Bands*, 19 FCC Rcd 14165 (2004) (*BRS/EBS Realignment Order*).

[2] Nextel is a licensee and a lessee in the 2.5 GHz band and is likely to serve as a proponent in transitioning the band to its new structure. Nextel may be adversely affected by the actions challenged in this petition and participated in the proceedings leading up to the *BRS/EBS Realignment Order*; thus, Nextel has standing to file this petition. Due to the complex nature of the issues involved in this proceeding, the Wireless Telecommunications Bureau authorized all petitioners to exceed the default page limit for petitions for reconsideration contained in Section 1.429(d) of the Commission's rules. *Amendment of Parts 1, 21, 73, 74 and 101 of the Commission's Rules to Facilitate the Provision of Fixed and Mobile Broadband Access, Educational and Other Advanced Services in the 2150-2162 and 2500-2690 MHz Bands*, __ FCC Rcd __, WT Docket No. 03-66, DA 05-14 (WTB, rel. Jan. 5, 2005) (citing 47 C.F.R. § 1.429(d)). Therefore, this pleading complies with the Commission's modified rules governing submissions of petitions for reconsideration.

[3] *See, e.g., BRS/EBS Realignment Order*, 19 FCC Rcd at ¶ 82.

like areas, and the Gulf of Mexico.[4] In the east, just two MEAs cover New York, Connecticut, Massachusetts, Vermont, Rhode Island, Maine, most of New Jersey, and a large portion of Pennsylvania. In the west, a single MEA stretches from Los Angeles, California over the Rocky Mountains to St. George, Utah. And in the south, another single MEA covers an enormous swath of territory that encompasses portions of Arkansas, Louisiana, New Mexico, Oklahoma, and Texas.

The Commission's stated reason for using mammoth, MEA-sized transition areas was to prevent a "haphazard" transition and "enable a proponent or proponents to transition large areas of the country at once, which [would] ensure that the 2500-2690 MHz band is transitioned quickly."[5] In reality, however, MEAs are too large for carriers to use in transitioning incumbent licensees to the new 2.5 GHz bandplan. MEA-sized transition areas needlessly complicate the transition by drawing in thousands of licensees across hundreds of square miles that pose no threat of interference if they are transitioned at different times. Use of MEAs will delay – rather than accelerate – deployment of broadband services in this band.

Transition proponents must untangle a host of complex engineering issues to manage a transition to the new band plan. With few, if any, exceptions, however, MEAs have little or no relationship to the universe of licensees relevant to avoid harmful interference during the transition period to the new band plan. Transitioning markets on an MEA basis will require enormous up-front expenditures due to the large number of EBS licensees included in larger regions. By including many more licensees than necessary to abate interference during a transition, the proponent's already capital- and

[4] *Id.* at ¶ 80.
[5] *Id.* at ¶ 82.

labor-intensive obligation to transition the band is only made more so. Similarly, the MEA territories have no resemblance to the geographic license areas that most proponents will hold. The principle geographic area used in licensing this band is the Basic Trading Area (BTA), which is several times smaller than an MEA.[6] BTA and MEA boundaries, moreover, are quite distinct: approximately 25 percent of the BTAs used to license BRS overlap with two or more MEAs. This inconsistency and overlap between MEAs and the BRS/EBS licensing structure will make an already complex process more complex, more expensive, and more time consuming – a result at odds with the goal that the Commission sought to achieve when it adopted MEA-based transition areas.[7]

The absence of any rational relationship between the geographic areas for the transition and the geographic areas relevant for BRS/EBS licensees and their operations has one final, and ultimately, fatal flaw: MEAs are so large that a single BTA licensee will likely never prove able to transition an entire MEA on its own. Few BTA licensees

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[6] Many site-based licenses are held on an even smaller geographic area basis with a radius of thirty-five miles or less depending on various factors.

[7] The Bureau of Economic Analysis (BEA) in the Department of Commerce defines the economic areas (EAs) upon which the Commission's MEA territories are based. *See* Bureau of Economic Analysis, BEA Economic Areas, *available at* <http://www.bea.doc.gov/bea/regional/docs/econlist.cfm> (last visited, Dec. 27, 2004). The Department of Commerce BEA routinely revises EA boundaries and has recently adopted a policy of using an "accelerated redefinition of BEA economic areas" that causes EA boundaries to fluctuate more often. *See* Kenneth P. Johnson & John R. Kort, *2004 Redefinition of the BEA Economic Areas,* Survey of Current Business 68 (Nov. 2004), *available at* <http://www.bea.doc.gov/bea/ARTICLES/2004/11November/1104Econ-Areas.pdf>. On November 17, 2004, for example, the BEA increased the number of EAs from 172 to 179. *See* Bureau of Economic Analysis, *New BEA Economic Areas For 2004,* Press Release BEA 04-52 (rel. Nov. 17, 2004), *available at* <http://www.bea.doc.gov/bea/newsrelarchive/2004/rea1104.htm>. The EA boundary changes create new complications for an MEA-based transition scheme. At a minimum, the Commission should define MEAs as of a date certain to ensure that the transition plans do not need to change because the EAs that comprise MEAs have changed.

will prove able to single-handedly manage the costs of transitioning an entire MEA. Even if a potential proponent possessed the substantial capital and personnel resources needed to transition such a large territory, a proponent would almost always expend its own resources to transition a substantial portion of territory over which it has no control. Under these circumstances, potential proponents will rarely prove willing or able to take the risk of transitioning other licensees' territories when reimbursement for a portion of the massive expenditures required to transition this band would become available, if at all, only months or years after the transition is complete.

In its *BRS/EBS Realignment Order*, the Commission acknowledged that multiple proponents would likely need to cooperate in transitioning a single MEA to make the transition economically feasible.[8] The Commission nevertheless persisted in its support for an MEA-sized transition area. It reasoned that creating large transition areas would not present an inordinate burden because multiple proponents could coordinate to clear a given MEA.[9] Despite the concessions, complications, and time-consuming procedures inherent in reaching any agreement among multiple parties, the Commission even suggested that mandating MEA-sized transition areas that require multiple proponents to complete would somehow increase "flexibility" and "efficiency."[10] In this peculiar bit of Orwellian logic, forcing competitors to make concessions to one another offers each licensee additional "flexibility" and requiring two or more decision-makers instead of one increases "efficiency."

[8] *BRS/EBS Realignment Order*, 19 FCC Rcd at ¶ 80.
[9] *Id*.
[10] *Id.* at ¶ 79.

MEA-sized transition areas that force concessions and diffuse responsibility are neither flexible, nor efficient. As Commissioner Jonathan Adelstein noted in his separate statement to the *BRS/EBS Realignment Order*, "the obligation to transition an entire MEA will make it exceedingly difficult for proponents to effectuate transitions in their particular market."[11] Even with the best of intentions, parties will rarely prove able to coalesce on a single plan in time to meet the three-year deadline for filing initiation plans with the Commission.[12] Due to the geographically disparate nature of the BRS licensing scheme, for example, potential proponents will routinely be interested in transitioning geographically distinct sub-regions, usually corresponding to the most common license area in the band, the BTA. Moreover, different companies' business plans will often require them to proceed on different schedules from one another. Developing a coordinated transition plan for an area as large and as diverse as an MEA would require two, three, or more competing proponents to reach agreement on innumerable, distinct decisions concerning how best to prioritize and adjust the transition plan for individual licensees to ensure an efficient and speedy retuning of the transitioning licensees that was competitively neutral to the BRS proponents involved in the transition plan.[13] Getting two or more likely competitors to agree on the complex minutiae of the 2.5 GHz transition process will prove expensive, time consuming, and perhaps impossible.

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[11] *Id.* at Separate Statement of Commissioner Jonathan S. Adelstein.

[12] It also remains unclear what dispute resolution procedures exist when there multiple proponents disagree on the timing and implementation of the transition.

[13] Where more than one proponent exists, moreover, the proponents must agree on how they will transition a particular MEA before the proponents file their transition Initiation Plan with the Commission – a procedural milestone that could delay Initiation Plans until the very end of the period for filing these plans with the Commission. *See* discussion *infra* § III(B).

The MEA-sized transition areas do not correspond to the problems that the transition poses and do not advance the goals of flexibility, efficiency, and timeliness that the Commission sought to achieve. A reviewing court asks that an agency examine the relevant data and articulate a satisfactory explanation for its action, including a "rational connection between the facts found and the choice made."[14] In this case, however, the Commission has not identified any rational relationship between the purported goal of a timely, efficient transition and the use of MEA-sized transition areas. Therefore, the Commission should reconsider its decision to transition the band on an MEA basis and adopt a BTA-based transition area instead.

BTAs are the basic licensing unit in the BRS band and are, thus, well suited to govern the process by which this band is transitioned. BTAs define markets by aggregating groups of counties that surround major cities in a manner that track licensees' typical customer-service areas. As the Commission has observed, BTAs "represent the natural flow of commerce, comprising areas within which consumers have a community of interest."[15] Unlike earlier industry proposals that relied on the intersection of interference contours to determine the transition areas, BTAs are fixed, well-defined areas large enough to prevent the type of "haphazard" transition that the Commission feared when it rejected the Coalition Proposal of interference-based transition areas.[16] BTAs are also large enough to allow licensees to achieve economies of

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[14] *Burlington Truck Lines, Inc. v. United States*, 371 U.S. 156, 168 (1962).
[15] *Amendment of the Commission's Rules Regarding the 37.0-38.6 GHz and 38.6-40.0 GHz Bands*, Report and Order and Second Notice of Proposed Rulemaking, 12 FCC Rcd 18600, ¶ 14 (1997).
[16] *See BRS/EBS Realignment Order*, 19 FCC Rcd at ¶82 (declining to adopt Coalition Proposal based on a station's geographic service area or Transition Impact Area (TIA) because a narrow approach based on actual interference would result in a "haphazard"

scale in transitioning the bands, but small enough to allow for manageable administration of the numerous complex details associated with a market wide transition. Furthermore, BTAs would reduce the need for co-proponents to transition a given market, which will accelerate the transition process and reduce expenses from trying to coordinate two separate entities that want to proceed on two different schedules.[17] Finally, unlike the mammoth, MEA-based transition areas, transitioning the band on a BTA basis would achieve the Commission's spectrum-management goals of flexible, efficient spectrum use by more closely aligning the anticipated areas of interference with the geographic area assigned for the transition.

Transitioning the nation on an MEA basis is too complex and too capital intensive to proceed with any speed. Transitioning the band on a BTA basis, by contrast, offers licensees the flexibility and the incentives necessary to ensure a swift, orderly, and nationwide transition to the new band plan and a more timely deployment of new and innovative services to consumers.

III. The Commission Should Use Intermediate Milestones and Deadlines to Ensure that the Five-Stage Transition Process to the New Bandplan Proceeds Quickly and Efficiently.

Under the new rules, BRS licensees have up to three-years during which they may propose transition plans for relocating existing facilities of all other licensees within the

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transition). To remain consistent with the BTA boundaries that the Commission originally auctioned in this service, the Commission should use a definition of BTA geographic areas as of the original MMDS BTA auction date. Using any revised definition of BTA boundaries that might have occurred since then could create gaps or overlaps in BTA areas that would complicate licensing.

[17] As the Commission noted, Rand McNally holds a copyright over the BTA concept. In its capacity as a member of the Wireless Communications Association, International (WCA), Nextel has commenced discussions with Rand McNally to permit licensing of the BTA concept for use during the transition. Rand McNally and Nextel continue to actively discuss this issue, and Nextel believes a licensing agreement can be reached.

relevant geographic area.[18] After the initiation period, transition and reimbursement obligations begin.[19] By integrating a handful of intermediate milestones and deadlines into the transition process now, the Commission can help prevent the public from experiencing delays and disputes later.

A. All Parties Should Respond to Pre-Transmission Data Requests In a Timely, Complete, and Accurate Manner.

The first stage of the transition process, Initiation, involves two intermediate steps: submitting a pre-transition data request to each EBS and BRS licensee in the MEA and submitting a transition notice to all BRS and EBS licensees in the MEA being transitioned.[20] Under the current rules, the recipient's response to a pre-transition data request appears to be voluntary.[21] There is no obligation or penalty for failure to respond, and there is no deadline by which the recipient must respond.[22] The Commission can eliminate many future disputes and much immediate confusion by adopting a few clear rules governing the timing and content of pre-transmission data requests.

First, the Commission should make responses to a pre-transition data request mandatory within a reasonable time, perhaps within twenty-one days of receiving a request.[23] Establishing a fixed time frame would allow a potential proponent to

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[18] *BRS/EBS Realignment Order*, 19 FCC Rcd at ¶¶ 74, 78.
[19] *Id.* at ¶ 74.
[20] *Id.* at ¶¶ 84, 85.
[21] *See id.* at ¶ 84.
[22] *Id*.
[23] *Cf. A Proposal for Revising the MDS and ITFS Regulatory Regime, submitted by the Wireless Communications Association International, Inc. the National ITFS Association and the Catholic Television Network*, RM-10586, App. B at 15 (filed Oct. 7, 2002) (Coalition Proposal) ("The recipient should be required to provide the requested information to the potential Proponent by any delivery service that provides evidence of receipt no later than twenty-one (21) calendar days after delivery of the Pre-Transition Data Request.").

commence comprehensive planning activities by a date certain without having to alter the transition plan time and again to respond to individual, "straggler" responses from transitioning licenses. Consistent with the original Coalition Proposal, failure to respond to a pre-transition request should result in the non-responding licensee losing primary status once the transition is complete.

Second, the Commission should expressly permit the pre-transition data request to include requests for contact information to arrange installation of the required equipment. The Commission should encourage transitioning licensees to file the same basic contact information that the proponent must disclose to transitioning licensees. The transitioning licensees therefore should provide: the transitioning licensee's full name, postal mailing address, contact person, e-mail address, and phone and fax number.[24]

Third, the Commission should clarify that all transitioning licensees have an obligation to ensure that the address and contact information on file with a potential proponent remains current.[25] Section 1.65 of the Commission's rules, which makes all applicants "responsible for the continuing accuracy and completeness of information furnished in . . . in Commission proceedings involving a pending application," should apply to transitioning licensees.[26]

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[24] *Cf.* 47 C.F.R. § 27.1231(f) (requiring the proponent to submit the same contact information).

[25] *See also* Coalition Proposal at 36 (noting that responses from licensees to the proponent "should be considered a representation not only to the potential Proponent, but also to the Commission.")

[26] 47 C.F.R. § 1.65(a) ("Whenever the information furnished in the pending application is no longer substantially accurate and complete in all significant respects, the applicant shall as promptly as possible and in any event within 30 days, unless good cause is shown, amend or request the amendment of his application so as to furnish such additional or corrected information as may be appropriate.").

Fourth, the Commission should work with industry to encourage all transitioning licensees to use a standard format, such as Microsoft Excel or ASCII text files, and a standard electronic medium, such as email or an industry coalition website, for compiling and transmitting information in response to a pre-transition data request.[27] Due to the diffuse and complex nature of license ownership in the BRS/EBS band, electronic data collection and processing will prove essential to a swift and orderly transition to the new band plan.

Adopting these intermediate rules and guidelines will accelerate the time-consuming pre-transmission data request process and should assure that both proponents and transitioning licensees know what they can expect from the transitioning process.

B. A First-In-Time Rule or Other Measures Are Needed to Avoid the Service Delays and Consumer Harm by Requiring Faster-Moving Proponents to Wait for Slower-Moving Potential Co-Proponents.

The current rules governing Initiation Plans appear to require proponents to agree on how they will transition a particular MEA *before* they file their transition Initiation Plans with the Commission.[28] Other than stating the types of parties that may serve as proponents, the *BRS/EBS Realignment Order* did not define the term "proponent."[29] And aside from the overarching three-year deadline for submitting Initiation Plans, the Commission did not establish any definitive date by which proponents must declare themselves as proponents for purposes of the transition. As a result, a party that has

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[27] Licensees could file responses in any number of electronic formats, such as web-entry, CD ROM, floppy disc, or e-mail.

[28] *BRS/EBS Realignment Order,* 19 FCC Rcd at ¶ 86 ("when there are two or more proponents that are transitioning the same MEA, the proponent(s) must indicate that they have reached an agreement on how a given MEA will be transitioned" before they may file an Initiation Plan with the Commission).

[29] 47 C.F.R. § 27.1231(d).

canvassed the relevant licensees, prepared any necessary engineering studies, identified the available funds, and completed all the other intermediate steps toward filing an Initiation Plan with the Commission cannot know what other "proponents" exist in the band and, thus, could theoretically find itself barred from filing an Initiation Plan with the Commission because it failed to satisfy the requirement that it must negotiate with other "proponents" prior to filing its initiation plan with the Commission.

Allowing delay unfairly and unwisely favors slower-moving proponents over those proponents most able to provide service to consumers. Suppose, for example, that an EBS lessee has submitted an initial questionnaire to licensees in the band, but has taken no other concrete steps to prepare an Initiation Plan for filing with the Commission. Is the EBS lessee a "proponent" with whom an otherwise compliant proponent must negotiate? To take another example, suppose that a BRS Licensee announces its present intention to become a proponent at some point in the future. Aside from the licensee's announcement, however, the licensee does *nothing* to prepare to file an Initiation Plan with the Commission. Must an entity that is otherwise prepared to file an Initiation Plan with the Commission now wait for the BRS licensee to decide whether or not to act on its stated intention to become a proponent in the band?

The answers to these questions are unclear because the term "proponent" is undefined and no period exists in which a party may declare their intention to serve as a proponent in the band. Without some modicum of guidance about what being a "proponent" really means, it is impossible to know the universe of people with whom a proponent must negotiate and agree. A proponent that is otherwise prepared to transition a band, thus, might theoretically need to wait as long as three years before the transition

could commence to ensure that all potential proponents are offered the opportunity to become co-proponents before the Initiation Plan filing window closes. In the worst case scenario, a single party could use the co-proponent requirement to force an otherwise prepared proponent to delay start of the transition – and, thus, service to consumers – until the objecting party has prepared its own business for commercial deployment.

With its emphasis on speed and rationality in the BRS/EBS transition, the Commission cannot have intended this result. Yet by seeming to have required proponents to integrate the inchoate desires of other potential "proponents" into the Initiation Planning process, the Commission's co-proponent requirement may leave those proponents with the most resources and most ability to meet current market demand at the whim of those who are unwilling or unable to serve the public.

Rather than attempt to force competing proponents to reach a comprehensive agreement on the transition plan before the first station is retuned, the Commission should adopt the industry-consensus Coalition Proposal and permit only the licensee that files a transition plan first to serve as the proponent for that geographic area.[30] The simple expediency of first-in-time-first-in-right will eliminate an enormous number of potential disputes and accelerate the transition across the nation.[31]

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[30] *A Proposal for Revising the MDS and ITFS Regulatory Regime, submitted by the Wireless Communications Association International, Inc. the National ITFS Association and the Catholic Television Network*, RM-10586 (filed Oct. 7, 2002) (Coalition Proposal).

[31] Of course, if the first-in-time proponent wants to *voluntarily* coordinate its activities with other, later filing licensees and cooperate in the transition, nothing should prevent the proponent from doing so; however, the proponent should not face *government-mandated* coordination of its transition activities with late-filing licensees that claim to want to serve as proponents within the band.

If the Commission wishes to give multiple proponents the option of participating in an Initiation Plan, the Commission should adopt two common-sense safeguards to prevent costly and time-consuming delays. First, the Commission should establish a "Proponent Election Period" of thirty days to accelerate transition commencement.[32] During this period any additional proponent would have to identify himself to the first-moving proponent so that the parties may begin immediate coordination of their transition-planning activities. Second, the Commission should provide that, if two or more prospective proponents cannot agree to act as co-proponents within ninety days, then the entity with the most licensed and leased spectrum within the transitioning area would become the sole proponent.[33] Given the greater opportunity costs that an entity with the most spectrum will experience from not having access to its licensed spectrum until the transition ends, the proponent with the most spectrum will possess the strongest incentive to ensure that the transition is completed in a timely manner. This simple measure of selecting a proponent would eliminate time-consuming disagreements among co-proponents over the minutiae of the transition process.

Whether through a first-in-time rule or by defining discrete windows for co-proponents to identify themselves and sort out basic plans, the Commission should adopt limits designed to minimize the potential for time-consuming disagreement among likely competitors in transitioning the band. Doing so will accelerate the transition, reduce costs, and deliver services to consumers more quickly.

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[32] The Proponent Election Period would begin upon the filing of Transition Notification with licensees.

[33] Licensed and leased spectrum would be measured in MHz-pops. The Commission could use other methods than the one proposed here to break a deadlock. To minimize disputes and eliminate unnecessary delay, however, any measure used to break a deadlock should be objective and readily ascertainable.

C. Proponents Should Have Two Opportunities to Submit Transition Initiation Plans Because the Current One-Strike Rule Ignores the Poor State of Many Licensing Databases.

Under the current rules, a proponent that withdraws an Initiation Plan may not then seek to transition that geographic area at a later date.[34] This draconian, one-strike-and-out rule ignores the unreliable licensing data that will complicate the BRS/EBS transition effort. With decades of shifting rules and numerous different licensing regimes, the BRS/EBS licensee databases at the Federal Communications Commission are inaccurate. Despite enormous diligence by a proponent, therefore, relevant information may emerge after the time the proponent files an Initiation Plan with the Commission. For example, a proponent might learn that an EBS licensee was inadvertently omitted and may need to adjust the plan to accommodate this newly identified station. The Commission should allow prospective proponents some measure of flexibility to respond to new information.[35]

If a proponent withdraws an Initiation Plans and no other proponent has yet filed another initiation plan, then the former proponent should be allowed to submit a second Initiation Plan. Adopting this minor change would allow a proponent one additional chance to transition the band based on better information while continuing to prevent

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[34] *BRS/EBS Realignment Order,* 19 FCC Rcd at ¶ 87 ("A proponent(s) that decides to withdraw an Initiation Plan may not then seek to transition that MEA at a future time.").

[35] The introduction of co-proponents into this process complicates the situation even further. Suppose, for example, that one co-proponent wishes to withdraw its Initiation Plan submission, but the other co-proponent wishes to proceed with the transition as planned. Can one co-proponent's withdrawal of a jointly filed Initiation Plan invalidate the other co-proponent from ever filing another Initiation Plan with the Commission? The answer is unknown. The prospect of having to sort out withdrawal disputes among co-proponents represents yet another reason to eliminate the co-proponent concept in its entirety or carefully cabin the concept with clear definitions and time limits. *See* discussion *supra* § IV.

parties from attempting to derive some advantage by alternately submitting and withdrawing Initiation Plans with the Commission.

D. Mandating Joint Filings from Hundreds of Transitioning Licensees Is Unnecessary and Inordinately Burdensome to Both the Proponents and the Transitioning Licensees.

Under the current rules, all affected parties must file a joint statement with the Commission that the transition is complete and that the licensees operate consistent with the new BRS/EBS rules.[36] While Nextel does not dispute the need for a post-transition notification, the Commission should reconsider its decision to require all parties to file *jointly.* The Commission's *BRS/EBS Realignment Order* announces the post-transition notification requirement without offering any reason for mandating a joint filing by all licenses. The complete absence of any explanation for the joint-filing requirement alone renders this rule arbitrary and capricious.[37]

The joint-filing requirement also serves no real purpose. As with any Commission licensee, proponents remain obligated to file only truthful statements with the Commission on penalty of monetary forfeiture, license revocation, and other penalties.[38] Putting aside the prospect of legal and regulatory penalties from submitting false information to the Commission, proponents have no incentive or ability to misrepresent facts to the Commission because any licensee that has not been transitioned or whose station information is not correct would receive a copy of the notice and

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[36] *See BRS/EBS Realignment Order*, 19 FCC Rcd at ¶102; 47 C.F.R. § 27.1235 (a) ("The proponent(s) and all affected licensees must jointly notify the Commission at the Office of the Secretary, Washington DC, that the Transition Plan has been fully implemented.")
[37] *See* 5 U.S.C. § 706(2)(A) (reviewing court must set "aside agency action . . . found to be arbitrary [and] capricious"); *see also Motor Vehicles Mfrs. Assoc. v. State Farm,* 463 U.S. 29 (1983).
[38] *See, e.g.,* 47 C.F.R. § 1.17.

challenge misrepresentations or misstatements at the Commission. Thus, even if proponents sought to mislead the Commission with unlawful false statements at the risk of large penalties or license revocation, these misrepresentations would offer little prospect of reward because a proponent must provide all licensees with a copy of the statement that the band transition is complete.[39]

The joint-filing requirement is also a costly mandate. The joint-filing requirement needlessly forces hundreds or possibly thousands of licensees within any given transition area to produce paperwork for the government without any clear purpose. The requirement, thus, flatly contradicts the Paperwork Reduction Act's goal of "minimiz[ing] the paperwork burden for individuals, small businesses, educational and nonprofit institutions."[40] The Commission does not consider whether alternatives to mandatory joint filing from non-proponents would reduce the burden on non-proponents, many of which will be small businesses by any definition of the term. The joint-filing requirement burdens proponents, too. If even one transitioned licensee failed to exercise diligence in responding to a proponent's request, that proponent could not serve the public despite the proponent's having spent tens of millions of dollars to transition the relevant licensees to the new band plan.

The Commission should reconsider its decision to mandate joint filing of post-transition notices and instead rely on the proponent to exercise diligence and report to the Commission on its own. If the Commission nevertheless sees some previously unstated value in a mandatory joint-filing requirement, the Commission should, at a minimum,

[39] 47 C.F.R. § 27.1235(c)("The proponent(s) must provide copies of the post-transition notice to all parties of the transition.").
[40] 44 U.S.C. § 3501.

clarify that the post-transition filing is not intended to be a pleading with lengthy comments from all affected licensees. If any licensee wants to provide an additional gloss on basic station information and a statement that all work necessary to effect the transition is complete, the post-transition notification is simply not the proper forum to do so. Additional information beyond responses to basic station identification and a statement that the work is complete should not be permitted as part of the post-transition filing.[41]

E. To Strengthen Interference-Abatement Rules, the Commission Should Establish Deadlines by Which Licensees Must Resolve Interference.

The Commission has established two rule provisions to allow licensees to resolve adjacent and co-channel interference problems that have long posed a problem for licensees in this band.[42] While Nextel proposes alterations to these rules to account for certain operational and technical issues,[43] Nextel strongly supports the Commission's decision to adopt adjacent and co-channel interference standards. These rule provisions promise to allow the many disparate services and licensees in this band to effectively and efficiently coexist. Unfortunately, however, neither of the existing rules provide intermediate deadlines or sufficient procedures to ensure that licensees can resolve interference within a reasonable amount of time. The Commission should establish deadlines to ensure licensees abate interference in a timely manner.

Appendix A suggests modified rule provisions that establish a time frame within which licensees must resolve base station interference. The proposed rules also attempt to provide some very basic guidance on how interference should be measured so the

[41] 47 C.F.R. § 27.1235(b).
[42] 47 C.F.R. §§ 27.53(l)(2), 27.1221(b).
[43] *See* discussion *infra* at VIII(A).

interferer and the victim can spend less time debating how best to measure interference and more time resolving it. Establishing basic standards for the many different types of licensees in the band should reduce interference-abatement costs and lead to fewer disputes before the Commission.

IV. To Limit Costly Regulatory Uncertainty, GSA Licensees Need Detailed Guidance On How to Determine the Boundaries of their License Area.

The Commission should clarify how to define geographic service areas (GSAs). Section 27.1206 defines the new GSA for an incumbent station, but does not specify precisely how licensees must divide geographic services areas when more than two licensed territories overlap.[44] Specific knowledge about the scope of a licensee's territory is essential for everything from license valuation, to interference abatement, to properly accounting for regulatory fees. The Commission must clarify the GSAs of licensees with detailed guidance on license boundaries.

While the Commission offered some guidance on how to establish GSA boundaries in one situation, several likely scenarios remain unaddressed. When more than two licenses overlap, for example, any number of different means of dividing those areas among the licensees exists; the Commission's rules should specify a method. In addition, the Commission does not appear to account for the curvature of the earth in its splitting-the-football method. Depending on the location and size of the geographic area, however, failing to account for earth curvature can result in significant differences in license territory. The Commission should state whether or not licensees should account for Earth curvature. Moreover, while the current rule might be read as obliquely

[44] *BRS/EBS Realignment Order,* 19 FCC Rcd at ¶¶ 60-65.

addressing the issue, it remains unclear exactly how cancelled, forfeited, reinstated, and pending licensees affect the process of splitting the football.[45]

The Commission dismissed requests for more detailed rules governing GSA territories based on the false premise that "the industry has informally resolved these boundary issues on its own for years without federal regulation."[46] The industry has not, in fact, resolved boundary issues on its own very often or very well. After years of unproductive stalemates, an industry-wide coalition finally developed comprehensive recommendations to resolve these issues.[47] Nextel strongly recommends the Commission adopt these provisions in their entirety. Within reasonable limits, the substantive outcome of how the Commission defines GSAs will matter much less than a clear, unambiguous statement from the Commission concerning the precise method for how licensees should resolve overlapping GSA boundaries. Failing to adopt clear rules governing licensees' geographic service areas casts a black cloud of regulatory uncertainty over a key element of the *BRS/EBS Order*. If the Commission clarifies the GSA boundaries, however, it will limit disputes among overlapping GSA licensees and provide a foundation for growth and development in this band.

[45] *See* 47 C.F.R. § 27.1206(a)
[46] *RS/EBS Realignment Order*, 19 FCC Rcd at ¶ 64.
[47] Coalition Proposal, App. A.

V. To Minimize Administrative Overhead, the Commission Should Expressly Allocate Reimbursement Expenses Among the Proponent and Other Licensees Through a Pre-Defined Formula.

The Commission properly held that commercial beneficiaries of the transition to a new bandplan should reimburse a proponent for its share of EBS transition costs.[48] To minimize the administrative overhead, time-consuming disputes, and possible litigation costs, however, the Commission should allocate reimbursement expenses between the proponent, commercial operators of EBS spectrum, and other commercial licensees through a clear, pre-defined formula.

To accommodate the widely varying size and irregularities of geographic-area licenses within the BRS/EBS band, the Commission should adopt a proponent reimbursement formula based on the number of megahertz of spectrum owned or leased by a commercial entity multiplied by the population of the covered area (MHz-pops). Using the well-established MHz-pops calculation would distribute expenses among transition beneficiaries in rough proportion to the transition costs they will have generated for the proponent. If all BRS and EBS licenses were the same size and covered the same population, then a reimbursement formula would simply total the relocation costs and then assign each licensee's share of the total expense of transitioning the BTA based on how many BRS/EBS licenses they held or leased. In the case of BRS and EBS, however, license areas vary in scope from small, roughly circular geographic areas thirty-five miles in diameter to BTA-sized overlay licenses that cover large expanses of territory, but omit the areas covered by the grandfathered site-based licensees. Unlike

[48] *See* 47 C.F.R. § 27.1233(c) ("BRS licensees in the LBS or UBS must reimburse the proponent(s) a pro rata share of the cost of transitioning the facilities they use to provide commercial service, either directly or through a lease agreement with an EBS licensee.").

license-based schemes, a MHz-pops formula accommodates the Swiss-cheese licensing scheme that has emerged in the BRS/EBS bands in which numerous and sometimes overlapping site-based incumbent licensees remain grandfathered inside the larger geographic "white space" encompassed by the BTA licenses.

Establishing a pro rata reimbursement formula prior to transitioning the band will minimize the potential for costly and time-consuming disputes over the proper amount of expenses attributable to each licensee. MHz-pops is a widely used measure of coverage in the communications industry and would serve as a comparatively simple means of assigning transition costs to BRS licensees and commercial lessees of EBS spectrum, provided that the Commission clarifies the scope of the incumbents' GSA licenses.

VI. Permitting the Introduction of New, Unknown Services into the Band Will Only Serve to Further Complicate the Transition and Increase the Risk of Harmful Interference.

In the *BRS/EBS Realignment Order*, the Commission lifted the restriction on unlicensed operations and permitted low-power unlicensed devices to operate in the 2655-2690 MHz band. The reasoning for this change was exceedingly thin: "given the ability of licensed operation to co-exist with unlicensed operations in the 2500-2655 MHz band, we see no reason to maintain this restriction in this band."[49]

The mere historical fact of co-existence between licensed and unlicensed uses in the upper 2.5 GHz band is meaningless. Unlicensed deployments have been exceptionally limited in the upper portion of the band. Moreover, as the Commission's *BRS/EBS Realignment Order* repeatedly acknowledged "outdated and overly restrictive regulation[s]" have constrained the deployment of *licensed* operations in the BRS/EBS

[49] *BRS/EBS Realignment Order,* 19 FCC Rcd at ¶ 139.

bands for a great many years.[50] The fact that massively under-deployed types of operations managed to co-exist in the 2655-2690 MHz band in the past says nothing about whether licensed and unlicensed uses can continue to coexist in the 2500-2655 MHz band in the future, particularly where, as here, both uses are expected to grow substantially. The entire BRS/EBS band also will soon undergo a massive reconfiguration designed, in the Commission's words, to encourage "the growth and rapid deployment of innovative and efficient communications technologies and services" in this band.[51] With the BRS/EBS band undergoing a major transition, allowing new, unknown services into the band will only further complicate the transition and heighten the risk of future interference. The Commission should reconsider its decision to introduce new unlicensed uses into the 2500-2655 MHz band.

VII. To Receive the Most Generous Protection from Interference, EBS Receive Sites Must Meet a Minimum Performance Requirement As Advanced in the Original Coalition Proposal.

In the Coalition Proposal, the Wireless Communications Association International, Inc., (WCA), the National ITFS Association (NIA), and the Catholic Television Network (CTN) submitted an industry-consensus plan required the Proponent to retune high-power, high-site EBS licensees to the middle band segment (MBS).[52] The Proponent would provide for the new MBS channels to be authorized to operate with transmission parameters substantially similar to those of the licensee's current operation by using a series of extraordinary interference-abatement measures to protect EBS

[50] *Id.* at ¶ 4.
[51] *Id.* at ¶ 1.
[52] Coalition Proposal at 37-38.

receive sites from interference.[53] In exchange, the Coalition Proposal exonerated the proponent from protecting inordinately sensitive EBS receive sites against reasonable emission levels once the transition was complete.[54]

Under the Coalition Proposal, EBS licensees would still be transitioned to the MBS, but could not reasonably expect to receive protection for receive sites at their original levels. Specifically, the Coalition Proposal recommended that:

> To avoid protecting [EBS]receive sites where desired signal levels are unduly low, the Proponent should not be required to [offer extraordinary interference protections] with respect to any [EBS] receive site that is not prior to the transition predicted to receive a desired signal carrier level of ≥ -80 dBm. Nor should the Proponent be required to [offer extraordinary interference protections] with respect to any [EBS] receive site that is not prior to the transition actually receiving a desired signal carrier level of ≥ -80 dBm. Moreover, only a predicted undesired signal level greater than –106.2 dBm should be considered to be an undesired signal for purposes of [the extraordinary interference protections].[55]

The Coalition Proposal, in other words, carefully balanced the proponent's MBS retuning requirement with the EBS licensees' obligation to meet a minimum standard of performance for their receive sites to become eligible for extraordinary interference protections once the transition was complete.

In its *BRS/EBS Realignment Order*, however, the Commission adopted the MBS returning requirement, but failed to adopt a minimum performance standard for EBS receive sites that the industry-consensus Coalition Proposal had recommended. Doing so leaves proponents responsible for protecting EBS receive sites against even reasonable

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[53] Under the current rules, the proponent must provide transitioning licensees with transmission parameters substantially similar to those of the licensee's current operation. The proponent must provide D/U ratios of no worse than 1.5 dB compared to their actual D/U or 45 dB for analog co-channel, 38 dB for analog with off-sets, 32 dB for digital co-channel and -10 dB for adjacent channel. *See* 47 C.F.R. § 27.1233.

[54] Coalition Proposal, App. B at 8.

[55] Coalition Proposal, App. B at 8.

levels of emissions into their licensed spectrum that would not ordinarily be expected to cause interference. While Nextel supports protecting reasonable EBS operations consistent with the rule changes recommended by the Coalition Proposal, these rule changes were tightly integrated with the complimentary industry-consensus proposal that provided that extremely poorly performing EBS receive sites would not receive the extraordinary interference protections offered to those EBS licensees that have met the minimum performance standards.

The omission of minimum standards for EBS receive sites is likely an oversight. If not, however, the Commission should reconsider its decision to protect poorly performing EBS receive sites during the transition as unfair to BRS licensees, contrary to the Coalition Proposal, and inconsistent with recent decisions and spectrum-policy recommendations.[56] To become eligible for the post-transition extraordinary interference protection levels, the pre-transition desired signal should be greater than -80 dBm and the undesired signal should be greater than -106.2 dBm.[57]

[56] S*ee generally, e.g., Improving Public Safety Communications in the 800 MHz Band*, Report and Order, Fifth Report and Order, Fourth Memorandum Opinion and Order, and Order, 19 FCC Rcd 14969 (2004) (*800 MHz Order*); Spectrum Policy Task Force Report, ET Docket No. 02-135 (rel. Nov. 15, 2002).
[57] Coalition Proposal at 37-38.

VIII. The Commission Can Provide Licensees with Greater Regulatory Certainty and Encourage Investment in the Band By Revising or Clarifying Several Technical Rules.

A. The Commission Should Eliminate the "Documented Interference Complaint" Requirement, Treat Similarly Situated Licenses the Same, Provide Rural Operators With Greater Latitude than Non-Rural Operators, and Make Other Corrections to Interference-Protection Rules.

Section 27.53(l) of the Commission's newly adopted BRS rules governs emission limits from transmitters.[58] This rule represents an important provision that will affect licensee operations every day for many years to come. Nextel recommends that the Commission adjust the rule in several important ways to minimize paperwork, treat similarly situated licensees the same, increase rural flexibility, and correct errors and omissions. Proposed rule text incorporating these corrections is attached as Appendix A, and these changes are discussed briefly below.

Documented Interference Complaints. While the Commission adopted a liberal emissions mask requirement with different limits for mobile and non-mobile stations, it permitted licensees to require that interfering stations reduce their emissions upon a showing of a documented interference complaint.[59] The Commission should eliminate the substantial paperwork burden that it has mistakenly imposed on large classes of stations that are all but certain to require the more stringent emissions mask. For situations where interference is likely, a stricter emissions mask should apply upon request of the victim licensee without the need to submit a formal documented interference complaint.

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[58] 47 C.F.R. § 27.53(l).

[59] 47 C.F.R. § 27.53(l)(2). Nextel has also recommended strengthen the default emission mask to protect against harmful interference.

Under Section 27.53(l)(2) of the Commission's newly adopted BRS rules, licensees can only invoke a more restrictive emissions mask protection if they submit a documented complaint of actual interference.[60] Under Section 27.4, a "documented complaint" must include a certification that the complainant has contacted the operator of the offending facility and attempted to resolve the situation, must specify the nature of the interference, must include a videotape or other evidence showing the effect of the interference, and must include a motion for a temporary order to have the interfering station cease transmitting.[61] The documented interference complaint imposes a burden on the victim licensee.

Imposing a burden on the victim licensee is proper when interference is *unlikely* to occur because an aggressor licensee should not have to limit its emissions to prevent interference that is unlikely to occur.[62] Whenever interference is *likely* to occur, however, the burden of compliance should shift from the victim to the aggressor licensee.[63] When interference is likely, victim licensees will routinely need to receive greater protection against interference and they should not have to meet the strictures of repeatedly submitting a formal "documented interference complaint." In the case of BRS/EBS non-mobile stations, for example, non-mobile stations that use a high antenna

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[60] 47 C.F.R. § 27.53(l)(2).
[61] 47 C.F.R. § 27.4.
[62] *See* 47 C.F.R. § 27.53(l)(2) (permitting mobile-satellite service licensees to require a more restrictive emissions mask upon submitting a documented interference complaint)
[63] *Compare* App. A: Proposed Rule Changes, 47 C.F.R. § 27.53(l)(3)(a)(1) (proposing that a licensee of a non-mobile consumer digital station located ***more than*** 1.5 km radius of an adjacent channel licensee's base station be permitted to require a more restrictive emissions mask upon submitting a documented interference complaint) *with* App. A: Proposed Rule Changes, 47 C.F.R. § 27.53(l)(3)(a)(2) (proposing that a licensee of a non-mobile consumer digital station located ***less than*** 1.5 km radius of an adjacent channel licensee's base station be permitted to require a more restrictive emissions mask upon request).

gain are extremely likely to cause harmful interference to adjacent-channel base stations if the stations are located less than 1.5 kilometers apart.[64] Because the current rule requires a carrier to generate a "documented interference complaints" even for this type of near-certain interference scenario, however, carriers will need to prepare, submit, and respond to thousands or tens of thousands of "documented interference complaints" simply to obtain protection they will routinely require.

To minimize the substantial burden that the "documented interference complaint" process imposes on BRS/EBS licensees, the Commission's rules should shift the burden from the victim licensee to the aggressor licensee whenever interference is likely to occur. Specifically, whenever a high probability of interference exists, such as when non-mobile stations that use external antennas are located within 1.5 kilometers of a base station, the Commission should require the aggressor licensee to use a more stringent mask upon the request of the victim licensee, rather than upon a victim's showing of a "documented interference complaint."[65]

Equitable Treatment for Licensees. Section 27.53(l)(2) also requires only the "new licensee" to reduce attenuation by at least $67+10\log(P) - 20\log(D_{km}/1.5)$ when the

[64] Current mobile devices have no antenna gain and the out-of-band-emissions (OOBE) limit is effectively –13 dBm/MHz based on a 43+10log(P) limit. Customer premises equipment (CPE) (*viz.*, non-mobile stations) with 13dBi external antenna gain will raise the effective OOBE limit to 0 dBm/MHz [(-13dBm/MHz + 13dBi) = 0dBm/MHz]. Also, the operating height for mobile devices is about 1.5 meters above the ground whereas external, fixed antennas will be mounted at a higher elevation, reducing the path loss to the victim base station. Furthermore, mobile devices operating in-building or in vehicle will have to penetrate through walls and other impairments where as CPE with external antennae will have much less impairment, creating much less path loss. Therefore, CPE that use an external antenna will cause much greater interference than mobile devices and these devices should observe a more stringent mask as a default rule.

[65] For a full explanation of the more stringent emissions mask requirements, *see infra* App. A, Proposed Rule Changes.

stations are less than 1.5 kilometers apart. By applying only to the "new licensee," the current rule provides an unfair advantage for the first-to-market carrier and puts the second comer at a large disadvantage. Therefore, the Commission should change the term "new licensee" to "interfering licensees" in Section 27.53(l)(2).

Section 27.53(l) also provides the MSS licensee the same rights to benefit from the dual spectral mask requirement that other BRS/EBS licensees possess. Thus, Section 27.53(l)(2) allows the MSS licensee to file a documented complaint against BRS licensees operating on channel BRS 1 on the same terms and conditions as adjacent channel BRS or EBS licensees. While Nextel supports this procedure, the Commission should provide BRS/EBS licensees a reciprocal right to request that MSS licensees observe the dual-mask requirement. In this way, BRS licensees can request the more restrictive mask upon interference from MSS licensees.

More Liberal Standards for Rural Operations. Rural areas will have much less dense deployments than non-rural areas and are less susceptible to interference in most cases. As indicated in the text proposed in Appendix A, Section 27.53 should take these differences into account and allow rural areas greater latitude to emit at higher levels than non-rural stations would.

Other Corrections. When read literally, Section 27.53 would require BRS licensees to meet the emissions mask 3 MHz from 2496 MHz – the lower edge of the BRS-1 channel. The rule as written prevents licensees from taking advantage of the one megahertz guardband at 2595-2496 MHz. The guardband provides additional protection and the rule should allow licensees to take this additional protection into account.

Therefore, section 27.53(l)(2) should specify that the 3 MHz for the 67+10 log(P) dB be measured not from the channel's edge but at 1 MHz down from the channel's edge.

Finally, Section 27.53(l)(4) provides that with respect to mobile digital stations, an MSS licensee "may also submit a documented interference complaint against BRS licensees operating on BRS1 on the same terms and conditions as adjacent channel BRS or EBS licensees."[66] This provision is strange because BRS and EBS licensees have no right to file a documented complaint relating to emissions from mobile digital stations, since there is no operational mask associated with those stations. It appears that this provision may have been inadvertently copied from Section 27.53(l)(2). Therefore, the Commission should delete this provision from the rule as erroneous.[67]

B. To Avoid Notice Problems, the Commission Should Permit Licensees to Exceed Maximum Signal Strength at the GSA Boundary Only Upon Consent of the Victim Licensee.

Section 27.55(a)(4) of the Commission's rules allows licensees to exceed the maximum signal strength at the GSA boundary "where there is no affected licensee that is constructed and providing service."[68] While Section 27.55(a)(4) requires licensees to promptly comply with the usual signal strength maximums once a neighboring licensee commences service, the rule does not provide a mechanism for the new operator to notify the old operator of the new operator's existence. Conversely, the rule does not require

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[66] 47 C.F.R. § 27.53(l)(4).

[67] The following sentence should be deleted from Section 27.53(l)(4) of the Commission's rules: "Mobile Service Satellite licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS1 on the same terms and conditions as adjacent channel BRS or EBS licensees." *See* 47 C.F.R. § 27.53(l)(4).

[68] 47 C.F.R. § 27.55(a)(4). For purposes of this rule, the Commission has held that facilities testing or the transmission of data that is not being received by any party does not constitute service. *BRS/EBS Realignment Order,* 19 FCC Rcd at ¶ 109 & n.207.

the old operator to notify potential new operators that the old operator has chosen to exceed the maximum signal strength level. To avoid these notice problems, the Commission should permit licensees to exceed maximum signal strength at the GSA boundary only upon consent of the victim licensee.

C. Emission Measurements for Multiple Channels Should Be Measured at the Outermost Edges of the Combined Channels.

To avoid confusion and minimize disputes, the Coalition Proposal recommended the Commission adopt a common method of measuring emission limits.[69] Specifically, the Coalition recommended that all of the various out-of-band emission requirements be measured at the outermost edges of the combined channels where two or more channels licensed to one or more licensees are used as part of the same system. The *BRS/EBS Order* did not discuss this proposal, and it is not reflected in the new rules. In Section 27.53(l), therefore, all the emission requirements are only stated from the channel's edge.[70]

Unless this provision is amended to reflect the common measuring method that the Coalition Proposal recommended, Section 27.53 of the Commission's rules will disadvantage licensees that hold two or more adjacent channels. Imposing the mask requirements on the edge that falls within the two or more channels blocks would reduce spectrum capacity, dampen innovation, and, ultimately, increase the price of service to consumers. The Commission should clarify that the emission measurements across multiple channels should be measured at the outermost edges of the combined channels.

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[69] Coalition Proposal at 29 & n.79 (citation omitted) ("The Commission should . . . provide for all of the various out-of-band emission requirements to be measured at the outermost edges of the combined channels where two or more channels licensed to one or more licensees are used as part of the same system.").
[70] 47 C.F.R. § 27.53(l).

D. The Commission's Bandwidth Adjustment Calculation Rules Should Reflect The Actual Bandwidth of the BRS-1 and BRS-2 Channels.

To avoid confusion and inconsistent application of the field strength limit, the Coalition proposed that the Commission specify that the 47 dBμV/m field strength limit be measured over the 5.5 MHz bandwidth of an LBS/UBS channel. The Coalition further proposed that operations over different sized channels be adjusted by applying a factor of 10 log[(actual bandwidth MHz)/(5.5 MHz). The Commission, however, did not adopt the Coalition Proposal and failed to adjust its measuring bandwidth to the BRS-1 and BRS-2 channels, which are 6 megahertz rather than 5.5 megahertz wide.[71] If the measuring bandwidth is kept at 5.5 MHz, then a licensee with a smaller operating channel bandwidth could use a higher signal strength limit than other licensees, which would cause interference to adjacent-market licensees that use the larger operating channel bandwidth.

The Commission should adopt the original Coalition Plan proposal. The Commission's rules should recognize the actual, six-megahertz bandwidth size of BRS-1 and BRS-2 and reflect the actual size of the BRS-1 and BRS-2 bands in its bandwidth-adjustment calculation. Therefore in Section 27.55(a)(4)(ii) a bandwidth adjustment factor of 10log[(actual bandwidth MHz/5.5] for 5.5 MHz channels should be applied and a factor of 10log[(actual bandwidth MHz/6] for 6 MHz channels should be applied for BRS 1 and BRS 2. This technical rule change will adjust the signal strength limit so that narrower bandwidth technologies do not pose an interference threat to broader bandwidth technologies.

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[71] 47 C.F.R. § 27.55(a)(4)(i) (providing that field strength is to be measured "over the channel bandwidth (i.e., each 5.5 MHz channel for licensees that hold a full channel block, and for the 5.5 MHz channel for licensees that hold individual channels).").

IX. Conclusion

The Commission has made progress in resolving the many problems that have long plagued the BRS-EBS band. Through the reforms identified here, the Commission can provide additional certainty and stronger investment incentives in the broadband marketplace that will help BRS-EBS licensees deliver services to consumers as swiftly as possible.

Respectfully submitted,

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APPENDIX A: PROPOSED RULE CHANGES

§ 27.53 Emission limits.

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(l) * * *

(2) For fixed and temporary fixed digital stations, the attenuation shall be not less than 43 + 10 log (P) dB, unless a ~~documented interference complaint~~ written request is received from ~~an adjacent channel licensee~~ any licensee with an overlapping geographic service area. ~~Provided that the complaint cannot be mutually resolved between the parties~~ Upon receipt of such a request, both licensees of existing and new systems shall reduce their out-of-band emissions by at least 67 + 10 log (P) dB measured at 3 MHz from their channel's edges for distances between stations exceeding 1.5 km. For stations separated by less than 1.5 km, the ~~new~~ interfering licensee shall reduce attenuation at least 67 + 10 log (P) – 20 log(Dkm/1.5), or when colocated, limit the undesired signal level at the affected licensee's base station receiver(s) at the colocation site to no more than -107 dBm measured over 5.5 MHz. Mobile Service Satellite licensees ~~operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS1~~ shall have the same rights and responsibilities as BRS licensees subject to the same terms and conditions as adjacent channel BRS or EBS licensees; however, out-of-band emissions should be measured 3 MHz away from 2495 MHz, rather than 3 MHz from the BRS channel edge. If a licensee with an overlapping geographic service area requests an interfering licensee to deploy a more rigorous emissions mask, then the licensee shall implement the applicable emissions mask as indicated in this subsection within 60 days of the date on which the requesting licensee commences commercial operations.

(3) For non-mobile consumer digital stations transmitting via an antenna that is either (i) affixed to the outside of a building or other non-antenna structure, or appurtenance thereto, or (ii) affixed to a tower, mast or other structure installed outdoors for the purpose of supporting antennas, the following emission limits apply:

(a) If such antenna is mounted such that the radiating element is located at or below 20 feet above ground level, or if such antenna is located in a county with a population density of 100 or fewer persons per square mile, based upon the most recently available population statistics from the Bureau of the Census, the out-of-band emissions associated with such antenna's transmissions shall be attenuated by at least 43 + 10 log (P) dB (measured at the channel's edges) and 55 + 10 log (P) (measured at 5.5 MHz from the channel's edges), except that:

(i) if a documented interference complaint is received from a licensee with an overlapping GSA and such complaint cannot be mutually resolved

between the parties, the party causing the interference shall reduce the out-of-band emissions associated with the offending antenna's transmissions by at least 67 + 10 log (P) dB (measured at 3 MHz from the channel's edges) within 60 days of the date on which the requesting licensee commences commercial operations;

(ii) upon request received from any licensee with an overlapping GSA, the operator(s) receiving such request shall reduce the out-of-band emissions associated with the transmissions from all such devices' antennas located within 1.5 km radius of the requesting adjacent channel licensee's base station by at least 67 + 10 log (P) – 20 log(Dkm/1.5) (measured at 3 MHz from the channel's edges) within 60 days of the date on which the requesting licensee commences commercial operations;

(b) If such antenna is located in a county with a population density of greater than 100 persons per square mile, based upon the most recently available population statistics from the Bureau of the Census, and mounted such that the radiating element is located greater than 20 feet above ground level, the out-of-band emissions associated with such antenna's transmissions shall be attenuated by at least 67 + 10 log (P) dB (measured at 3 MHz from the channel's edges) within 60 days of the date on which the requesting licensee commences commercial operations, except that if such non-mobile consumer digital station is separated by less than 1.5 km from a pre-existing base station, the out-of-band emissions associated with such antenna's transmissions shall be attenuated by at least 67 + 10 log (P) – 20 log(Dkm/1.5) (measured at 3 MHz from the channel's edges) within 60 days of the date on which the requesting licensee commences commercial operations.

~~(3)~~ (4) For mobile digital stations, the attenuation factor shall be not less than 43 + 10 log (P) dB at the channel edge and 55 + 10 log (P) dB at 5.5 MHz from the channel edges. ~~Mobile Service Satellite licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS1 on the same terms and conditions as adjacent channel BRS or EBS licensees.~~

~~(4)~~(5) * * *

~~(5)~~(6) * * *

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§ 27.55 Signal Strength Limits.

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(4) BRS and UBS: The predicted or measured median field strength at any location on the geographical border of a licensee's service area shall not exceed the value specified unless the adjacent affected service area licensee(s) agree(s) to a different field strength. This value applies to both the initially offered services areas and to partitioned services areas. Licensees may exceed this signal level ~~where there is no affected licensee that is constructed and providing service~~ upon written consent from all adjacent market licensee that share a geographic border with the requesting licensee. Once the affected licensee is providing service, the original licensee will be required to take whatever steps necessary to comply with the applicable power level at its GSA boundary, absent consent from the affected licensee.

(i) LBS and UBS band: 47 dB [mμ] V/m. This field strength is to be measured at 1.5 meters above the ground over the channel bandwidth plus a bandwidth correction factor (i.e., ~~each 5.5 MHz channel for licensees that hold a full channel block, and for the 5.5 MHz channel for licensees that hold individual channels~~ a factor of 10log[(actual bandwidth MHz/5.5] for 5.5 MHz channels and a factor of 10log[(actual bandwidth MHz/6] for 6 MHz channels).

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§ 27.1221 Interference Protection.

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(b) Protection for a Receiving-Antenna not Exceeding the Height Benchmark: A base station receive-antenna with an HAAT less than or equal to the height benchmark relative to a neighbor's transmitting base station will be protected if that station's HAAT exceeds its height benchmark. That station is required to take such measures to limit the undesired signal at the receiving base station to -107dBm or less.

(1) Upon the request of a geographically adjacent co-channel BRS/EBS licensee, a BRS/EBS licensee shall provide base station location and height for all base stations in its geographic area license within 30 days of receipt of such a request.

(2) If the geographically adjacent co-channel licensee performs a simulated interference study using a free-space path loss model that predicts base station co-channel interference and delivers the study to the interfering licensee, then the interfering licensee shall abate the predicted interference, provided that: (i) the requesting licensee's base station complies with the applicable height benchmark, and (ii) the interfering licensee's base station exceeds the applicable height benchmark.

(3) The interfering licensee shall complete interference-abatement measures within 60 days of the date on which the victim licensee commences commercial operations.